REMARKS

The Applicants appreciate the thorough examination of the present application that is reflected in the Official Actions of September 8, 2004, and March 28, 2005. In particular, the Applicants appreciate the withdrawal of all claim objections. In response, the Applicants have amended Independent Claims 25, 48, and 50 to include the recitations of Dependent Claims 27, 49, and 50, respectively; rewritten Claims 28 and 30 in independent form; and canceled Claims 27, 49, and 50. In the following remarks, the Applicants will show that Claims 25, 30, 48, and 50 are patentable over U.S. Patent No. 5,657,451 to Khello ("Khello") and U.S. Patent No. 6,421,727 to Reifer *et al.* ("Reifer"). The Applicants will also show that U.S. Patent No. 6,745,241 cannot be used under 35 U.S.C. Sec. 103(a) to reject Claim 28.

Reconsideration of the outstanding rejections and allowance of all claims is thus respectfully requested. In the alternative, entry of this amendment is requested as narrowing issues for further consideration on appeal. No new issues have been raised because the only amendments have been to amend independent Claims 25, 48, and 50 to include recitations of previously presented (and entered) dependent Claims; to rewrite Claims 28 and 30 in independent form; and to cancel Claims 27, 49, and 50.

For the sake of conciseness, all remarks relating to patentability from the Amendment of November 7, 2004, have not be repeated herein. The remarks from the Amendment of November 7, 2004, however, are incorporated herein in their entirety by reference.

Claims 25, 48, And 50 Are Patentable Over Khello and Reifer

Claim 25 has been amended to include all recitations of previously presented Claim 27. Claim 25 has been amended to narrow issues for further consideration and to advance prosecution of the application to allowance without conceding unpatentability of Claim 25 as previously presented. In the Final Office Action of March 28, 2005, Claim 27 (the recitations of which correspond to those of Claim 25 in the present Amendment) has been rejected under 35 U.S.C. Sec. 103(a) as being unpatentable over U.S. Patent No. 5,657,451 to Khello ("Khello") in view of U.S. Patent No. 6,421,727 to Reifer *et al.* ("Reifer"). In response, the Applicant will

show that Claim 25 is patentable over the cited art for at least the reasons discussed below.
Claims 48 and 50 have been similarly amended, and Claims 48 and 50 are similarly patentable
over Khello and Reifer.

As amended, Claim 25 recites a method of dynamically undeploying web services in a
computing network, the method including:

> receiving an undeployment trigger for a selected service;
> determining one or more network locations where the selected service is
> deployed; and
> effecting a dynamic undeployment by programmatically removing the selected
> service from one or more selected ones of the network locations;
> wherein services comprise web services;
> wherein receiving an undeployment trigger comprises receiving an undeployment
> trigger for a selected web service in the computing network;
> wherein determining one or more network locations comprises determining one or
> more network locations where the selected web service is deployed in the computing
> network; and
> wherein effecting a dynamic undeployment comprises effecting a dynamic
> undeployment by programmatically removing the selected web service from one or more
> selected ones of the network locations in the computing network.

In contrast to the method of undeploying a "web service" in a "computing network"
recited in Claim 25, both Khello and Reifer discuss telecommunications networks/systems.
More particularly, Khello discusses a generic service coordination mechanism that solves
feasible service interaction problems within telecommunications networks. (*See*, for example,
Khello, Abstract; col. 2, lines 45-50; col. 5, lines 23. col. 6, lines 6, 44, 61-62, and 67; col. 7,
lines 10, and 26; etc.) Similarly, Reifer discusses providing service activation capability from
service providers to end-customers in a global Iridium type telecommunications system. (*See*,
for example, Reifer, Title; Abstract; col. 1, lines 6-8; col. 2, line 2; col. 3, line 30; etc.)
Accordingly, neither Khello or Reifer or the combination thereof teaches or suggests any of the
following recitations of amended Claim 25:

> (1) a web service in a computing network;
> (2) an undeployment trigger for a web service in a computing network;
> (3) determining a location where a web service is deployed in a computing network; or

> (4) <u>programmatically removing a web service</u> from a network location in a computing network.

The Office Action cites col. 8, lines 54-56 of Khello with respect to receiving an undeployment trigger for a selected web service in the computing network. The cited portion of Khello states that:

> At the time of a service provision or withdrawal procedure request, the coordination mechanism accomplishes the following tasks....

Khello, col. 8, lines 54-56. The "service" referred to in Khello, however, is a "telecommunications service" as discussed, for example, in Khello at col. 6, lines 44-60, as opposed to a web service in a computing network. Khello thus fails to teach or suggest receiving an undeployment trigger for a selected web service in a computing network.

The Office Action cites col. 8, lines 54-67 of Khello with respect to effecting a dynamic undeployment by programmatically removing the selected web service from one or more selected one of the network locations in the computing network. The cited portion of Khello states that:

> At the time of a service provision or withdrawal procedure request, the coordination mechanism accomplishes the following tasks:
> Inhibits a repeated provision of the same service on a specific access or to a specific subscriber;
> Inhibits provision of a service due to inconsistency between the access and/or subscriber and the service characteristics;
> Inhibits provision and/or withdrawal of a service due to the definitive interaction criteria: Restricted or Dependent;
> Inhibits provision and withdrawal of a service due to disallowed authority;

As discussed above, however, the service of Khello refers to a telecommunications service as opposed to a web service. Accordingly, Khello fails to teach or suggest programmatically removing a selected web service from a network location in a computing network.

Moreover, the Office Action concedes that "Khello does not explicitly teach determination of network locations." Accordingly, Khello fails to teach or suggest any of the recitations of Claim 25, and Reifer fails to provide the missing teachings. Moreover, the Office

Action does not identify any portions of Reifer as teaching or suggesting an undeployment trigger for a web service or programmatically removing a web service from a network location in a computing network.

The Office Action cites col. 4, lines 24-29 and Figures 8 and 9 of Reifer with respect to determining network locations. The cited portion of Reifer states that:

> A Home Gateway is assigned to each subscriber to the network 100 and is related to the LAC at which the subscriber is based. The Home Gateway is responsible for granting system access. Whenever a subscriber places or receives a call, the network 100 will determine the subscriber's location with accuracy sufficient for call control. The Home Gateway will receive and evaluate this location information to determine whether it is permissible for the call to proceed. This feature is essential to help ensure compliance with calling restriction laws in nations where such laws exist.

Reifer, col. 4, lines 24-32. Reifer thus discusses determining a subscriber's location for call control. While Figure 8 shows a "Web Network (Iridium Intranet)" and Figure 9 shows an "Internet", nothing in Reifer teaches or suggests determining a subscriber's location for anything other than call control. More particularly, Reifer fails to teach or suggest determining a location where a web service is deployed in a computing network.

As set forth in Section 2143 of the Manual Of Patent Examining Procedure (MPEP), three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As discussed above, the Khello and Reifer patents (when taken alone or when combined) fail to teach or suggest all of the claim limitations as required by the MPEP. As discussed above, the Office Action concedes that Khello does not teach determining a location where a web service is deployed in a computing network, and Reifer fails to provide the missing teaching because Reifer discusses determining a subscriber's location for call control. Moreover, Khello also fails to teach or suggest an undeployment trigger for a web service in a computing network

and/or programmatically removing a web service from a network location in a computing network, and the Office Action does not point to any portions of Reifer as teaching or suggesting these recitations.

In the alternative, assuming for the sake of argument that Khello does teach all elements of Claim 25 except determination of network locations and web services as set forth in the Office Action, the Applicants respectfully submit that there is no motivation to modify Khello in light of Reifer as suggested by the Office Action. In particular, the cited portions of Reifer discuss determining a subscriber's "location for call control" in a telecommunications network, and evaluating the location information to determine "whether it is permissible for the call to proceed." (*See*, Reifer, col. 4, lines 25-30.) In addition, Reifer states that "This feature is essential to help ensure compliance with calling restriction law in nations where such laws exist." (Reifer, col. 4, lines 30-32.) The Applicants respectfully submit that location determination "for call control" and to "ensure compliance with calling restriction law" in a telecommunications network fails to teach or suggest determining a network location where a web service is deployed in a computing network and programmatically removing the web service from the network location in the computing network.

For the reasons discussed above, the Applicant respectfully submits that Claim 25 is patentable over the cited art. In addition, Claims 48 and 50 are patentable for reasons similar to those discussed above with respect to Claim 25. The Applicants further submit that Dependent Claims 26, 29, and 31-47 are patentable at least as per the patentability of Claim 25 from which they depend. If the Examiner should maintain any rejections based on the combination of Khello and Reifer, the Applicants respectfully request that the Examiner provide clarification regarding the motivation to modify Khello in view of Reifer to teach or suggest the recitations of Claim 25.

Dependent Claim 28 Is Patentable Over The Cited Art

Dependent Claim 28 has been rejected as being unpatentable over Khello in view of Reifer and further in view of U.S. Patent No. 6,745,241 to French *et al.* ("French"). Dependent Claim 28, however, is patentable for at least the additional reasons discussed below.

The Applicants respectfully submit that French cannot be used in a rejection under 35 U.S.C. Sec. 103(a) because the subject matter of present application and the French patent were, at the time the invention was made, owned by International Business Machines Corporation (IBM) or subject to an obligation of assignment to IBM, and because the French patent qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102. *See*, 35 U.S.C. Sec. 103(c). The French patent has been removed as a reference to advance prosecution of the present application pursuant to 35 U.S.C. Sec. 103(c), and reliance on 35 U.S.C. Sec. 103(c) should not be construed as an admission that French discloses or suggests the claimed invention or elements thereof.

The Applicants thus request that all rejections of Claim 28 be withdrawn. Accordingly, the Applicants respectfully submit that Claim 28 is in condition for allowance.

Dependent Claim 30 Is Patentable Over The Cited Art

Claim 30 has been rejected under as being unpatentable over Khello in view of Reifer. Dependent Claim 30, however, is patentable for at least the reasons discussed below.

Claim 30 has been rewritten in independent form. Accordingly, Claim 30 recites a method of dynamicallhy undeploying services in a computing network. In addition, Claim 30 recites:

> receiving an undeployment trigger for a selected service wherein the undeployment trigger is an undeployment request issued by an origin server from which the selected service was initially deployed;
> determining one or more network locations where the selected service is deployed; and
> effecting a dynamic undeployment by programmatically removing the selected service from one or more selected ones of the network locations;
> sending the undeployment request to all of the network locations;
> shutting down the selected service at the network locations, responsive to receiving the undeployment trigger, and removing executed code which implements the selected service from a run-time environment of each network location;
> shutting down the selected service at the origin server; and, responsive to receiving the undeployment trigger, and removing executed code which implements the selected service from a run-time environment of each network location; and

making the selected service unlocatable in the computing network.

The Applicants respectfully submit that the cited art fails to teach or suggest at least "removing executed code" and/or "making the selected service unlocatable." With respect to removing executed code, the Office Action cites "col. 8, line 54-col. 9, line 67" without identifying the reference being cited. After reviewing col. 8, line 54 to col. 9, line 67 of both Khello and Reifer, the Applicants respectfully submit that neither reference teaches or suggests "removing executed code."

The Applicants further submit that the cited art fails to teach or suggest making a selected service unlocatable. With respect to making a selected service unlocatable, the Office action cites col. 16, lines 45-65 of Khello. The cited portions of Khello state that:

> a general deactivation procedure is performed internally within the coordinator which changes the coordination state to "BARRED".

Khello, col. 16, lines 62-65. Reading on, Khello states that:

> If such indications are present, the routine moves to step 198 where the coordinator state is reset to its original value. ... Thus, the service can be generally available, but withdrawn individually for a specific user. (Underline added.)

Khello, col. 17, lines 5-9. The Applicants respectfully submit that the service being generally available teach away from making a selected service unlocatable.

Accordingly, the Applicants respectfully submit that Claim 30 is separately patentable over the cited art. If the Examiner should maintain any rejections of Claim 30 based on Khello and Reifer, the Applicants respectfully request that the Examiner particularly identify portions of one or both references that teach or suggest removing executed code and that teach or suggest making a service unlocatable.

**Consideration Of References Cited In The
Information Disclosure Statement Of December 7, 2004 Is Requested**

The Applicants respectfully request that the Examiner provide indication of consideration of the references cited in the Information Disclosure Statement of December 7, 2004. Copies of
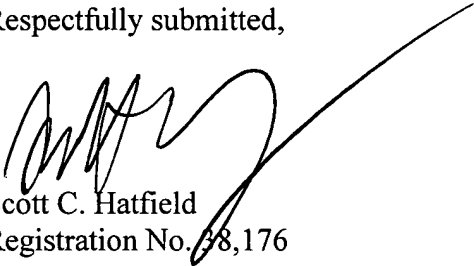
the Information Disclosure Statement (including a Certificate Of Mailing dated December 7, 2004), the Form PTO-1449 (citing 17 U.S. patent documents), and the post card receipt (showing receipt at the U.S. Patent Office on December 10, 2004) are attached.

CONCLUSION

Accordingly, the Applicant submits that all pending claims in the present application are in condition for allowance, and allowance of all claims is respectfully requested in due course.

Respectfully submitted,

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